

Robotic Data Storage Library With the Ability to Reduce the Transition Time to Reach an Operational State After a Transition From a Power-Off State to a Power-On State

Abstract

A robotic data storage library is disclosed that is capable of operating with at least one data storage element and with the ability to reduce the transition time to reach an operational state after a transition of the library from a power-off state to a power-on state. Methods for reducing the transition time to reach an operational state of a robotic data storage library after a transition of the library from a power-off state to a power-on state are also disclosed. One embodiment of a robotic data storage library with the ability to reduce the transition time to reach an operational state after a transition of the library from a power-off state to a power-on state comprises: (1) a plurality of storage locations, each capable of holding at least one data storage element; (2) a data transfer interface for receiving a data storage element and

establishing a communication path with a data storage element so that data can be transferred between the data storage element and a host computer; (3) a transport unit for moving a data storage element between one of the plurality of storage locations and the data transfer interface; (4) a nonvolatile memory for storing an inventory of locations of the robotic data storage library; and (5) a controller for causing an audit to be performed to create an inventory, causing the inventory to be stored in the nonvolatile memory prior to a transition of the robotic data storage library from a power-off state to a power-on state, and causing the inventory to be transmitted to a host computer after the transition of the robotic data storage library from a power-off state to a power-on state.